

REMARKS

The Official Action mailed November 3, 2009, and the Advisory Action mailed March 19, 2010, have been received and their contents carefully noted. Filed concurrently herewith is a *Request for Two Month Extension of Time*, which extends the shortened statutory period for response to April 5, 2010. Also, filed concurrently herewith is a *Request for Continued Examination*. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant notes with appreciation the consideration of the Information Disclosure Statements filed on June 19, 2006; September 1, 2006; and March 14, 2008.

Claims 1-14 are pending in the present application, of which claims 1-9 are independent. Claims 1-4, 8 and 9 have been amended to clarify the features of the present invention. Claims 5-7 have been withdrawn from consideration by the Examiner. Accordingly, claims 1-4 and 8-14 are currently elected, of which claims 1-4, 8 and 9 are independent. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 2 of the Official Action and page 2 of the Advisory Action continue to reject claims 1-4 and 8-14 as obvious based on the combination of U.S. Patent No. 6,509,217 to Reddy, U.S. Publication No. 2001/0038127 to Yamazaki and U.S. Publication No. 2005/0140539 to Fujieda. The Applicant respectfully traverses the rejection because the Official Action has not made a *prima facie* case of obviousness.

As stated in MPEP §§ 2142-2144.04, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some reason to do so found

either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims. Independent claims 1-4, 8 and 9 have been amended to recite that particles comprising a soft magnetic material are included in the insulating film. The Official Action concedes that Reddy does not disclose fine particles of soft magnetic material but asserts that "Yamazaki discloses in FIG. 4A and related text, e.g., an insulating film (215) and fine particles of a soft material (214; gold) are included in the film." The Official Action further asserts that "Fujieda discloses in FIG. 5 and related text, e.g., soft magnetic particles (paragraph 105, 'Fe') and that it would have been obvious to replace Yamazaki's gold with Fujieda's iron citing a concern over cost (pages 2, 3, 15 and 16, Paper No. 20091026). The Applicant respectfully disagrees and traverses the assertions in the Official Action.

The Examiner appears to misapprehend the term "soft magnetic material," resulting in a fundamentally unreasonable claim construction that vitiates the Official Action. Specifically, the Examiner appears to interpret a soft magnetic material as a material having a soft tactile characteristic, which is also magnetic. This is apparent because the Examiner implicitly concedes that "214; gold" of Yamazaki is not a magnetic material but nonetheless asserts that it is "a soft material" (Id., page 3). However, one having at least ordinary skill in the art would readily understand that "soft magnetic material" refers to magnetic material that has high permeability and small coercivity, as described in paragraph [0014] of the published specification. That is, a soft magnetic material is a magnetic material that is only magnetized in the presence of

a magnetic field and does not remain magnetized in the absence of one. The Official Action fails to appreciate this meaning and interprets the claimed limitation in a manner that is unreasonably broad. Hence, the assertion of Yamazaki in the course of the rejection based on gold being "a soft material" is improper. Accordingly, the Applicant respectfully traverses the assertion of Yamazaki in the rejection, as apparently motivated by the Examiner's misunderstanding of the technical term "soft magnetic material."

Furthermore, in the Response filed February 3, 2010, the Applicant argued that "one of ordinary skill in the art at the time of the present invention would not have a reason to replace one material disclosed in one reference with another material disclosed in another reference, particularly when the other material has a different structure in a different field in order to achieve a different purpose." In response, the Advisory Action asserts:

"[this] is found unpersuasive because it is the same art, the art of the conductive interconnect in both cases. Hence, according to KSR, what we have here is simply a case of a known technique to improve similar devices. Since it is conductive interconnect in both cases, the devices are similar" (Paper No. 20100315, page 2).

The Applicant respectfully disagrees and traverses the assertions of the Advisory Action. Fujieda is not directed to a conductive interconnect and the devices are not similar. As noted in the Response filed February 3, 2010, Fujieda is directed to an electromagnetic wave absorber. In any event, Fujieda does not describe any "known technique" to improve a conductive interconnect and would not have logically commended itself to the attention of one of ordinary skill in the art at the time of the invention who attempted to improve a conductive interconnect.

Furthermore, although the Advisory Action appears to rely only informally on KSR International Co. v. Teleflex, Inc., 550 U.S. 398, 127 S. Ct. 1727, the Examiner misinterprets the standard of obviousness set forth in KSR. The Court in KSR held that "rejections on obviousness cannot be sustained by mere conclusory statements;

instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness" and that such rationales may include "the application of a known technique to a piece of prior art ready for the improvement." KSR, 550 U.S. at 417, 127 S. Ct. at 1740. That is, "if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill." Id. However, the Advisory Action appears to interpret this rationale of KSR as permitting the combination of references from non-analogous arts merely because the references allegedly contain a "conductive interconnect." Rather than applying a known technique to a similar device, the Official Action and the Advisory Action assert that the two allegedly similar devices should instead be combined outright. However, even if, *arguendo*, both references did include a conductive interconnect, that characteristic alone, under KSR, would not sufficiently demonstrate why one of ordinary skill in the art would have found it obvious to combine the references. For example, it would not be obvious to one of ordinary skill in the art to combine a car and a steamboat merely because both vehicles include wheels. Accordingly, the Applicant further traverses the asserted combination of Yamazaki and Fujieda as based on a mistaken and unsupported application of the Court's holding in KSR.

Also, in response to the Applicant's previous argument that "the creation of defective products as a result of the Examiner's hypothetical modifications of the prior art, is highly relevant to the question of whether it would have been obvious to use the anisotropic conductive material of Yamazaki compared to the use of pure metal in the via 108/110 of Reddy," the Advisory Action responds that "[this] is not found persuasive for two reasons... the Designer always runs simulations and calculations to make sure that everything functions as expected (just as an aside, the Examiner has been a practicing semiconductor engineer for 9 years, and hence, speaks from experience)" (Paper No. 20100315, page 2). The Applicant respectfully traverses the assertions of

the Advisory Action and submits that the Official Action and Advisory Action fail to observe the proper standard of obviousness. MPEP § 2142 states that the examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. Furthermore, as noted in MPEP § 2143.01, Part V, if a proposed modification renders the prior art invention being modified unsatisfactory for its intended purpose then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). The fact that a hypothetical designer would perform simulations and calculations to determine whether a proposed combination works does not mitigate the Examiner's obligation to set forth a functional combination in the first place and does not excuse the Examiner from meeting his burden of demonstrating *prima facie* obviousness. Such simulations may well substantiate the Applicant's contention that the device would not function as expected. Furthermore, the Examiner's dependence on such simulations and calculations as a necessary precursor to the proposed combination tends to demonstrate that such a combination would not have been obvious to one of ordinary skill in the art. In any event, the Examiner may not shift his own burden for demonstrating *prima facie* obviousness to a hypothetical designer.

Moreover, the Examiner's own experience is not relevant to a patentability determination. A proper obviousness analysis should resolve the level of ordinary skill in the art. Office personnel may rely on their own technical expertise only to describe the knowledge and skills of a person of ordinary skill in the art, not to usurp the ordinary skilled person outright from such an analysis. The person of ordinary skill in the art is a hypothetical person who is presumed to have known the relevant art at the time of the invention. The Examiner's perspective must be framed from the mind of that hypothetical person; not vice versa. The Examiner appears to assert his own personal belief that the claims would be obvious to him and sustains the rejection based on his own level of experience in the art. However, the Applicant respectfully notes that the Examiner is also privy to the disclosure of the subject application and is prey to

hindsight bias. As such, it is not proper for the Examiner to circumvent a proper and objective obviousness inquiry, including an analysis of the level of ordinary skill in the art, by instead basing the hypothetical artisan on himself. Accordingly, the Examiner has failed to apply the standard of obviousness required under 35 U.S.C. § 103(a) and the rejections are further traversed for this reason.


Finally, independent claims 1-4, 8 and 9 have also been amended to recite an insulating film or resin comprising at least one selected from the group of polyimide, epoxy, acryl and polyimide over the conducting wire. The Applicant respectfully submits that Reddy, Yamazaki and Fujieda, either alone or in combination, do not teach or suggest these features of the present invention.

For the reasons stated above, the Official Action has not formed a proper *prima facie* case of obviousness. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized to charge fees under 37 C.F.R. §§ 1.16, 1.17, 1.20(a), 1.20(b), 1.20(c), and 1.20(d) (except the Issue Fee) which may be required now or hereafter, or credit any overpayment to Deposit Account No. 50-2280.

Respectfully submitted,



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